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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/582,520

09/28/2006

Philippe Tailhades

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OLIFF & BERRIDGE, PLC

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ALEXANDRIA, VA 22320-4850

EXAMINER

BRYANT, MICHAEL C

ART UNIT

PAPER NUMBER

2884

MAIL DATE

DELIVERY MODE

10/29/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/582,520	Applicant(s) TAILHADES ET AL.	
	Examiner CASEY BRYANT	Art Unit 2884	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 September 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 September 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>8/28/2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Amendments

1. Applicant's preliminary amendment to the claims, filed 6/9/2008, has been received and entered.

Claims 1-3, 6 and 8 have been amended.

No claims have been cancelled.

New claims 9-16 have been added.

Thus, claims 1-16 remain currently pending in this application.

Specification

2. The abstract of the disclosure is objected to because the separate sheet on which is it located contains more than one paragraph. Correction is required. See MPEP § 608.01(b).

Information Disclosure Statement

3. The information disclosure statement filed 8/26/2006 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered. The Applicant has

failed to provide a copy of French Patent FR 2 150 608 and NPL reference authored by Baliga et al.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 4-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A single claim which claims both an apparatus and the method steps of using the apparatus is indefinite under 35 U.S.C. 112, second paragraph.

IPXL Holdings v. Amazon.com, Inc., 430 F.2d 1377, 1384, 77 USPQ2d 1140, 1145 (Fed. Cir. 2005); *Ex parte Lyell*, 17 USPQ2d 1548 (Bd. Pat. App. & Inter. 1990). See MPEP 2173.05(p).

Regarding the instant claims, it is unclear whether the Applicant claims the novelty of an apparatus or method of detection in the instant claims.

The applicant may not claim both, as it overlaps two statutory classes of invention as set forth under 35 U.S.C. § 101. For example, claim 1 is directed to a method of detection, whereas dependent claim 4 is directed to a device for detection. The issue is further exacerbated by the fact that claim 8, which depends from claim 4, refers back to a method of detection.

The Examiner has made the best possible attempt to interpret the claims for the purposes of prior art rejection.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1–4, 8 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by **Coron** (FR 2 150 608).

With respect to claims 1-4, 8 and 9, Coron discloses a method of bolometric detection, comprising detecting IR using a material of the formula $\text{Ni}_{0.9}\text{Fe}_{0.1}\text{Fe}_2\text{O}_4$ (Examples 1 and 2) deposited as a thin film (20 μm)(p. 2, lines 10-11) and allowing a detection of the incident radiation of 70% within the range from 10 μm to 1mm (Example 2).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject

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matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 6, 7, 13 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Coron** (French Patent FR 2 150 608).

With respect to claim 6, Coron does not specifically disclose a device having an array of pixels. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a plurality of sensors in an array, since it has been held that a mere duplication of the essential working parts of a device involves only routine skill in the art. *St Regis Paper Co. v. Bemis Co. USPQ 8*. One of ordinary skill would have been motivated to provide a sensor array using the device of Coron in order to provide an imaging focal plane.

With respect to claim 7, Coron does not specifically disclose the device connected to a CCD or CMOS matrix array. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the sensor of Coron in, for example, a CMOS array since it was known in the art that CMOS matrix arrays can be integrated with output and processing electronics on the same substrate (e.g. Fiorini et al. – US 6,194,722).

With respect to claims 13 and 15, Coron discloses a method of detection using a sensor configured to and allowing a detection of the incident radiation of 70% within the range from 10 μ m to 1mm (Example 2).

10. Claims 5, 10, 11, 12, 14 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Coron** (FR 2 150 608) in view of **Endo** (US 5,962,854).

With respect to claim 5, Coron discloses a bolometer, but does not specifically disclose the device inserted in a package having a IR transparent window. Endo discloses a IR sensitive bolometer film arranged in a package on a membrane and configured to receive IR radiation through an IR – transparent window (Figures 7-8; col. 14, line 43 – col. 15, line 65). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the bolometer of Coron in a package on membrane, as taught by Endo, in order to isolate the sensor from thermal noise and protect it from external damage.

With respect to claim 10, Coron does not specifically disclose a device having an array of pixels. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a plurality of sensors in an array, since it has been held that a mere duplication of the essential working parts of a device involves only routine

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skill in the art. *St Regis Paper Co. v. Bemis Co. USPQ 8*. One of ordinary skill would have been motivated to provide a sensor array using the device of Coron in order to provide an imaging focal plane.

With respect to claim 11, Coron does not specifically disclose the device connected to a CCD or CMOS matrix array. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the sensor of Coron in, for example, a CMOS array since it was known in the art that CMOS matrix arrays can be integrated with output and processing electronics on the same substrate (e.g. Fiorini et al. – US 6,194,722).

With respect to claims 12, 14 and 16, Coron discloses a method of detection using a sensor configured to and allowing a detection of the incident radiation of 70% within the range from 10 μ m to 1mm (Example 2).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CASEY BRYANT whose telephone number is (571)270-1282. The examiner can normally be reached on Monday - Friday, 8am - 5pm, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Porta can be reached on (571)272-2444. The

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fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Casey Bryant
Patent Examiner
October 20, 2008

/CHRISTINE SUNG/
Primary Examiner, Art Unit 2884